

## SYSTEM AND METHOD FOR FINANCING COMMERCIAL TRANSACTIONS

**[0001]** This application claims the benefit of Israel Patent Application No. 153275 entitled "Method and System for Providing Collaborative Financing of Trade Credit" filed on December 4, 2003, the disclosure of which is incorporated by reference in its entirety.

### BACKGROUND OF THE INVENTION

#### Field of the Invention

**[0002]** The present invention generally relates to a method, and related system, for financing commercial transactions among buyers and suppliers and more particularly to a method and system for financing of trade credit in a manner that reduces the costs of purchasing goods and services under terms of trade credit.

#### Discussion of Related Art

**[0003]** Trade credit is widely used in commercial transactions for the purchase and sale of goods and services, both domestically and internationally. Under conventional terms of trade credit, a supplier supplies goods or services to a buyer, and the buyer agrees to pay for goods and services at some future date, after delivery of the goods or services.

**[0004]** Competition among suppliers typically compels suppliers to sell goods and services under terms of trade credit. However the provision of trade credit comes at a measurable financial cost. This cost is evidenced, for example, by suppliers being willing to offer purchasers a discount for early payment of the purchase price of a sale, or alternatively by suppliers obtaining short term financing from third parties, secured by an expectation to receive future payment in consideration of a trade transaction.

**[0005]** Although trade credit plays an important role in streamlining and enabling economical commercial relationships between suppliers and buyers, it may result in various economic inefficiencies. For example, although a buyer may be able to raise funds under better terms than a supplier, in a commercial relationship, a cash discount may not provide a sufficient incentive for a buyer to surrender credit terms offered by a supplier. As a result, the economic cost of a trade transaction may be higher than it needs to be.

**[0006]** Several methods have been proposed to improve commercial transactions:

**[0007]** U.S. patent 5,694,552 to Aharoni describes a financing method incorporating a new use of a financial instrument called a trade acceptance draft (TAD) as payment for goods

and services. A TAD resembles a post-dated check and requires the cooperation of a supplier, buyer and financial institution. Against a buyer endorsed TAD, a seller may receive from a financial institution an advance of payment with respect to goods and services delivered. The TAD establishes an independent legal relationship between the buyer and the financial institution entitling the financial institution to deposit the TAD at a future due date for collection from the buyer.

**[0008]** U.S. patent 6,167,385 describes a supply chain financing system and method in which a buyer generates a purchase order, and a supplier ships goods against the purchase order and sends an invoice to the buyer which is stored in a database. A financial institution has direct access to invoices in the database and provides financing to the supplier for goods shipped under selected invoices. Upon maturity of the financing, the buyer settles with the financial institution.

**[0009]** U.S. patent application publication 2002/0082985 describes a method and system for converting existing or future trade credit obligations into a new obligation. Suppliers bargain or bid to provide purchasers a discount for the prompt payment of one or more accounts receivable with respect to a trade transaction. A funding company promptly pays the supplier an agreed discounted payment in satisfaction of an account receivable. At an agreed future date the purchaser pays the finance company an amount greater than the discounted payment, up to the face value of trade transaction.

**[0010]** U.S. patent application publication 2002/0116332 describes a system and method for facilitating a commercial transaction incorporating a new use of a post dated negotiable instrument in the amount of an invoiced value of a trade transaction.

**[0011]** Although these methods may be somewhat effective in securing trade credit or obtaining better credit terms, buyers still may not have a sufficiently adequate incentive to fully collaborate with suppliers to make available to suppliers improved terms of short term credit to which only the purchaser have access.

## SUMMARY OF THE INVENTION

**[0012]** To solve the above described problem, the present invention seeks to provide an improved financing method which encourages collaboration between a supplier and a buyer so that superior terms of short term credit available to relatively strong buyers may be exploited when financing relatively weak suppliers, wherein relative strength is a measure of relative financial strength.

**[0013]** The present invention further seeks to encourage a buyer to collaborate with a financial facilitator in obtaining improved terms of short term trade credit while creating for the buyer a direct profit and other commercial benefits.

**[0014]** The present invention further seeks to create new credit possibilities available for a supplier, and to encourage collaboration of a buyer by creating additional income for the buyer.

**[0015]** The present invention further seeks to improve efficiencies in financing trade credit in cases where there is a “financial gap” between a buyer’s cost of funds and the discount rate which a supplier is prepared to pay for exchanging the buyer’s debt into immediately available cash.

**[0016]** In accordance with an embodiment of the invention, a suppliers’ invoices which may be paid early are prioritized according to a “financial gap”, commercial risks associated with a buyer’s acceptance of goods and services are removed, funds for making early payment to the supplier are obtained from financial institutions competing to provide credit, and a buyer’s preferences and other buyer related constraints are taken into consideration. A buyer is incentivized to collaborate in securing improved terms for financing trade credit by distributing back to the buyer a portion of the gap between a discount for prompt payment offered by the supplier and cost of funds charged by financial institutions against the buyer’s risk.

25

**[0017]** In accordance with another aspect of the present invention, a buyer’s debts to a supplier are purchased from the supplier and then sold to a financial institution following the neutralization of the commercial risks of the debt by provision of an irrevocable commitment by the buyer to pay for delivered goods and services at a future date. The funds received from the financial institution are used to make an early payment to the supplier. ~~3~~Part of the financial gap between the discount rate at which the supplier is willing to receive early payment, and the amount of cash that a financial institution is willing to immediately provide

against the buyer's commitment to pay in the future is distributed to the buyer. This distribution effectively lowers the purchase price paid by the buyer.

[0018] Participants in a trade credit financing transaction in accordance with an embodiment of the invention thus share in the benefits of increased economic efficiency: a supplier promptly receives cash in exchange for an account receivable, the cost of the cash is at an attractive price made possible by collaboration of the buyer and the buyer making an irrevocable commitment to pay for goods and services received; a buyer receives new income or enjoys a lower purchasing costs; the supplier and the buyer enjoy the willingness of financial institutions to assume a credit exposure that is higher than actually needed by the buyer in the course of its commercial activities; and financial institutions can gain new business by providing additional credit on the basis of a buyer's creditworthiness.

[0019] There is thus provided in accordance with an embodiment of the invention a method for paying in a commercial transaction between a supplier and a buyer including essentially neutralizing a trade risk associated with payment for a commercial transaction for the delivery goods or services from the supplier to the buyer, the commercial transaction including credit terms permitting payment for the goods or services at a future date; engaging a facilitator to obtain capital from one or more financial institutions against a commitment of the buyer to effect payment at a future date; paying a portion of the capital to the supplier in advance of the future date, the portion being the supplier's satisfaction for the commercial transaction; honoring the commitment to effect the payment on or about the future date; and distributing between the buyer and the facilitator a difference between capital obtained from the one or more financial institutions and the portion paid to the supplier.

[0020] There is thus provided in accordance with another embodiment of the invention, a method for financing a commercial transaction between a supplier and a buyer, including: engaging a buyer receiving goods or services under terms of trade credit from a supplier of goods or services, the trade credit permitting payment for the goods or services at a future date, the buyer neutralizing a trade risk associated with paying for the goods and services; engaging a financial institution to provide capital against a commitment of the buyer to effect the payment at a future date; transferring a portion of the capital to the supplier in advance of the future date, the portion satisfying consideration for the supply of the goods or services; and distributing to the buyer at least part of a difference between the capital and the portion.

[0021] There is thus provided in accordance with still another embodiment of the invention, a method for financing of a trade credit, including: receiving and storing information from parties participating in a trade credit financing transaction; selecting according to the information received from the parties and the buyer's preference the debt to finance and the financial sources to use for financing the debt; presenting the selected debt and the corresponding accounts payable and the parties to the trade credit financing transaction to the buyer; approving by the buyer of the selected debt and the parties to the trade credit financing transaction and by sending an ante-dated irrevocable order to pay the debt; assigning the buyer's payment to a financial institution and receiving discounted cash in return; paying in cash to a supplier a payment approved by the buyer less a discount; and paying the buyer the difference between the cash received from the financial institution and the cash paid to the supplier, less an agreed commission.

[0022] There is thus provided in accordance with still another embodiment of the invention, within a computer device having at least one central processing device, at least one storage device, linked to a data communications network, an apparatus for financing of a trade credit by discounting a buyer's debt to the supplier and selling the buyer's debt to a financial institution, the apparatus including the elements of: an interface for interfacing with the buyer, supplier and the financial institution in order to provide information concerning the invoices and the terms of the trade credit financing transaction; a device for prioritizing or selecting at least one trade credit financing transaction and based on the terms of the ~~at least one~~ transaction for suggesting to at least one buyer at least one trade credit financing transaction; and a database storing information of the parties to the trade credit financing transaction preferences.

[0023] There is thus provided in accordance with still another embodiment of the invention, a method in which an entity for financing trade credit by discounting a buyer's debt to the supplier, eliminating commercial risks of the debt through collaboration with at least one buyer and selling the at least one buyer's debt to a financial institution, the method including the steps of: obtaining at least one supplier demand for a trade credit financing transaction; obtaining a credit line at least one financial institution has proposed to provide against the buyer; obtaining from at least one buyer at least one received and ~~approved~~ for payment invoice associated with the supplier; processing the at least one supplier demand, the credit line and the at least one received and ~~approved~~ for payment invoice associated with the

supplier whereby at least one invoice is selected for payment; transmitting the at least one invoice selected for payment to the buyer; receiving at least one ante-dated irrevocable payment order to the at least one financial institution to pay the entity, on the at least one selected invoice for payment due date, the total of the face value of the at least one invoice selected for payment; receiving funds, for the assignment of the buyer's future payment, from one financial institution at a rate that represent the buyer's credit risk; transferring to the supplier a discounted payment for the at least one invoice selected for payment; and transferring the buyer payment of the difference between the funds received from the financial institution and the funds paid to the supplier, less a sum that stays with the entity.

#### BRIEF DESCRIPTION OF THE DRAWINGS

10

**[0024]** The present invention will be understood and appreciated more fully from the following detailed description of illustrative, non-limiting embodiments with reference to the accompanying drawings, in which:

**[0025]** Fig. 1A is a simplified block diagram illustrating an interaction among participants in a method for collaborative financing of trade credit ("CFTC") in accordance with an embodiment of the invention;

**[0026]** Fig. 1B is a schematic illustration of a computing and communications environment for implementing the method of Fig. 1A;

**[0027]** Fig. 2 is a simplified schematic illustration of an exemplary structure of a CFTC service center device, employed in the method of Fig. 1A; 20

**[0028]** Fig. 3 is simplified chart of considerations used by a CFTC service center, in accordance with the method of Fig. 1A;

**[0029]** Fig. 4 is a simplified flowchart of collaborative financing of trade credit, in accordance with the method of Fig. 1A;

**[0030]** Fig. 5 is a simplified chart of procedures for completing collaborative financing of trade credit in accordance with the method of Fig. 1A.

## DETAILED DESCRIPTION

**[0031]** Reference is made to Fig. 1A which is a simplified block diagram illustrating an interaction among participants in a method 100 for collaborative financing of trade credit (“CFTC”), in accordance with an embodiment of the invention. The method, and a system for implementing the method as seen in Fig. 1B, is used to finance trade credit offered by a supplier to a buyer in a transaction for the sale of goods or services.

**[0032]** As seen in Fig. 1A, a supplier delivers goods or services to a buyer, and the buyer is invoiced for the sale under terms of trade credit requiring payment of a purchase price at some future date. In accordance with an embodiment of the invention, a supplier who desires to finance trade credit offered to the buyer enters into an arrangement with a center for the collaborative financing of trade credit. In accordance with this arrangement, the supplier agrees to assign to the CFTC Center its right to accounts receivable from the buyer, and in consideration it receives from the CFTC the sales price less a discount for prompt payment.

**[0033]** The CFTC center obtains capital for payment of the discounted sales price to the supplier from one or more financial sources. These include, for example, one or more of banks, insurance companies, capital markets or other financial institutions. In accordance with an embodiment of the invention, this capital is in the form of non-recourse credit/payment issued against the sale of a buyer’s irrevocable commitment to pay up, at an agreed future date, the purchase price of goods or services that it received from the supplier.

**[0034]** The CFTC center thus facilitates the obtaining of short term financing for the supplier’s trade credit. Consideration for the CFTC’s services is derived from the financial spread between non-recourse credit/payment that a financial institution is willing to pay in consideration of its receiving a commitment from the buyer to pay the purchase price and the discounted purchase price that a supplier is willing to accept for early payment of the purchase price.

25

**[0035]** It is appreciated that as this spread increases, the potential for profit of the CFTC center also increases. It is a feature of embodiments of the present invention that various mechanisms are provided to increase this financial spread. These mechanisms may include, for example and without limitation, one or more of the following: (i) suppliers compete for the obtaining for a prompt payment discount. A criterion for selecting a supplier may be, for example, a supplier’s willingness to accept a sizable discount for prompt payment; (ii) banks and financial institutions compete to provide non-recourse credit under the most

preferential terms for a given commitment of a buyer to pay the purchase price at a future date; (iii) buyers are encouraged to quickly approve invoices for goods and services received in uncontested transactions. Irrevocable approval of invoices neutralizes trade risks, and quick approval of invoices increases the time for which suppliers obtain short term financing of trade credit; (iv) buyers share information about goods and services received, and invoices approved; and (v) a portion of the gap between non-recourse credit/payment from a financial institution and the discounted purchase price that a supplier is willing to accept is distributed to the buyer to encourage the buyer's collaboration in securing superior terms of trade credit.

**[0036]** The inventors believe that a collaborative financing method in accordance with an embodiment of the present invention improves economic efficiency in commercial relationships where at least one financial institution offers financing against the buyers' credit risk at a cost of funds that is lower than the discount rate at which the supplier is ready to pay for exchanging the buyer's debt into cash. Thus, in accordance with an embodiment of the invention, a supplier may finance trade credit at terms which are better than it would be able to obtain, but for collaboration of the buyer. 15

**[0037]** In accordance with an embodiment of the present invention, a specifically designed, developed and implemented CFTC service center establishes commercial relations with buyers. These buyers typically are financially strong corporations, with respect to whom financial institutions are willing and able to take a credit exposure at a relatively low interest rate, compared to interest rates available in financial markets. 20

**[0038]** As seen in Fig. 1A, the CFTC service center receives periodically, but not necessarily synchronously with a given trade transaction or at the same intervals as trade transactions, functional information from one or more of the following sources: a) information from suppliers, or agreements with suppliers representing discount demands, namely the price that suppliers are prepared to accept a prompt cash payment in exchange for an account receivable with respect to money that a buyer owes for merchandise, services, or for other reasons, b) information from a plurality of financial institutions relating to how much of a buyers' debt, clean from any commercial dispute, they are prepared to buy and at what price, and c) near in time to each transaction, information on approved-for-payment invoices from the buyers. In accordance with an embodiment of the invention, information on approved for payment invoices is obtained directly from an accounts payable (AP) system of a cooperating buyer.

**[0039]** The CFTC service center processes the collected information and determines one or more of the following: which suppliers should be included in the process; which invoices should be included in the process, which financial institutions should be included in the process; and what amount of debt should be financed. As noted above, the processing is performed in order to increase the financial spread in the transaction. Optionally, processing by the CFTC service center may consider specifically pre-defined strategic criteria and other preferences of the buyers, terms set by the suppliers and the availability of financial resources.

**[0040]** In accordance with an embodiment of the invention, processed information is presented to buyers in the form of suggestions for financing transactions. These may include, for example, particular invoices, the financial institutions available to provide financing and the amount of funds available. Buyers optionally have the power modify transactions suggested by the CFTC center. Once a buyer approves a transaction, it sends a post-dated, irrevocable, assignable payment commitment or payment order. This commitment may be sent directly to a financial institution, or via the CFTC center.

**[0041]** One aspect of a payment order is a payment request or instruction from a buyer to a financial institution to pay a certain amount of money to a certain account, for example to the supplier, on a certain date. Another aspect of the payment order is that it includes a firm commitment by the buyer to pay to the CFTC service center (instead of directly to the supplier) the full face value of selected invoices received from selected suppliers on or before a future payment date.

20

**[0042]** The CFTC service center assigns a buyer's payment commitment to a selected financial institution. The CFTC service center receives from the financial institution either cash, short-term loan or a combination of the two against the assigned commitments. Financing received from the financial institutions carries an interest rate that reflects the buyer's cost of funds at the financial institution. The CFTC service center subsequently pays a supplier in cash (less the discount for early payment of a sales transaction). The CFTC reports to the suppliers which invoices have been settled by the payment and which invoices are assigned to the CFTC.

**[0043]** A portion of the spread between the cash received from the financial institution and cash paid to the supplier is distributed to the buyer. The remaining portion constitutes an agreed fee to be paid to the CFTC service center for its services. This fee may be calculated in any suitable way. Once payment of an invoice comes due under its original terms, the buyer

honors its commitment to pay the invoice and transfers an amount equal to the face value of the invoices to the financial institution. In accordance with an embodiment of the invention, the financial institution keeps this payment in full. Further payment to the CFTC service center is not required.

**[0044]** Reference is now made to Fig. 1B which is a schematic illustration of a computing and communications environment useful for implementing the method of Fig. 1A. In the embodiment seen in Fig. 1B, CFTC service center 10 comprises a set of computer programs and associated data structures that are operative to implement a method for collaborative financing of trade credit. CFTC service center 10 is installed, for example, on a computer platform that is communications enabled, for example by being linked to a data communications network 17 via standard communications software and communications hardware devices. In accordance with an embodiment of the invention, the computing platform carrying CFTC service center 10 is a dedicated computing device powered by a communications server system. Optionally, this platform is a general purpose computing platform including various other computing systems having diverse functionalities<sup>15</sup>

**[0045]** In regular operation, CFTC service center 10 is owned and operated by a business entity. The data communication network 17 may be, however, any suitable wide area computing or communications network, for example the Internet, World Wide Web (Web), or a suitable dedicated wide area network. Operation of the communications network may function automatically or manually. 20

**[0046]** As seen in Fig. 1, various suppliers, each associated with a corresponding computer device designated 14 – 19, maintain communication with the CFTC through network 17. The suppliers typically are business entities, such as a companies or institutions supplying products, merchandise and/or services to potential buyers in the framework of well-defined commercial transactions. These transaction typically include the provision of trade credit. In accordance with an embodiment of the invention, the CFTC 10 maintains computer records that include suppliers' respective preferences, for example agreed upon terms of operation and participation in collaborative trade credit financing operation. It is noted that these terms of operation may be configured and updated through via the communications network 17, or, alternatively, manually, for example by faxing the information or entering the information by a person.

[0047] In addition to suppliers, the CFTC center 10 maintains communication with various financial institutions, for example, through communications network 17. As seen in Fig. 1B, each financial institution operates a set of computing devices 20, 22, 24, 26 respectively. A financial institution is a business entity, for example, a bank, insurance company or any other funding company that provides financial services or funds. 5

[0048] In accordance with an embodiment of the invention, devices 20, 22, 24, and 26 each include the local computing systems used by corresponding financial institutions. These systems include suitable computer programs and associated data structures for supporting a method for collaborative financing of trade credit.

[0049] As seen in Fig. 1B, a buyer operating a computing device 12 is also in communication with CFTC, for example via the communications network 17. A buyer is a business entity, such as a company or an institution that purchases various products, merchandise and services from suppliers. These suppliers, include, but are not necessarily limited to, the suppliers operating the devices 14, 16, 18, 19.

[0050] Device 12, associated with a buyer, typically includes one or more computer processing units, runs various software packages and includes communication capabilities. In accordance with an embodiment of the invention, In accordance with and embodiment of the invention, the buyer's local computing systems, including appropriate computer programs and associated data structures, run on device 12.

[0051] It is noted that for the sake of simplicity and teaching of the core inventive concepts of embodiments of the present invention only a limited number of suppliers, financial institutions, a CFTC service center and one buyer are seen in Fig. 1B. Nevertheless, in actuality a system for the collaborative financing of trade credit may include an essentially unbounded number of potential suppliers, buyers and financial institutions in communication with a CFTC service center through network 17. Optionally, a system for collaborative financing of trade credit may be operative, for example in an early start up phase, with merely a single buyer, a single supplier a single financial institution and a single CFTC service center.

[0052] In accordance with an embodiment of the invention, the CFTC service center associated with device 10 facilitates a connection between the specific financial institutions associated with each of devices 20, 22, 24, 26, the buyer associated with the device 12 and each of the suppliers associated with the devices 14, 16, 18, 19. By using these connections,

CFTC service center facilitates improved collaborative financing of trade credit offered by suppliers.

**[0053]** In accordance with an embodiment of the invention, although the provision of collaborative trade credit is facilitated and implemented by the CFTC service center 10, the process is controlled by the buyer 12 in the sense that buyer 12 controls which ~~trade~~ credit debts are financed and which are not.

**[0054]** In the embodiment seen in Fig. 1B, Buyer 12 is a business entity or other institution that maintains commercial relationships with suppliers 14, 16, 18, 19 and receives trade credit from them. Under generally accepted accounting practices, trade credit appears as “accounts payable” on the balance sheet of the buyer 12. The financial institutions 20, 22, 24, 26 are also business entities, such as banks, insurance companies, funding companies or various combinations thereof. These institutions are willing and able to assume a credit exposure against certain debts of the buyer 12 at a relatively low interest rate or risk premium when compared to market standards, or when compared to credit terms otherwise available to suppliers 14 - 19. In this context, the willingness of a financial institution to ~~assume~~ credit exposure means a readiness to provide interest bearing credit or readiness to buy a debt of the company at a certain discount.

**[0055]** In accordance with an embodiment of the invention, a multi-lateral contractual relationship, or several bi-lateral contractual relationships, are entered into between each the CFTC service center 10, a buyer 12, its suppliers 14, 16, 18, 19 and financial institutions 20, 22, 24, 26 who are potentially willing to provide the funds by assuming a credit exposure with buyer 12. Under terms of the contract, for goods and services delivered, each supplier 14, 16, 18, 19 agrees to receive a discounted prompt cash payment from the CFTC service center 10 in place of full future payment from a buyer under terms of trade credit.

**[0056]** In accordance with an embodiment of the invention, under the~~25~~ terms of a contractual relationship, suppliers 14, 16, 18, and 19 consent that invoices for prompt payment may be chosen by the CFTC service center 10. A suitable legal mechanism is employed with respect to the exchange of future payment with prompt discounted cash payment, for example debt assignment to CFTC service center 10. This mechanism needs to satisfy the two participants and fulfill the rules of the local legal system for the implementation~~20~~ of the true and final sale of the Accounts Receivable.

**[0057]** Consent of suppliers 14, 16, 18, 19 to the terms and to the appropriate operating procedures for the exchange of future accounts receivable for immediate discounted payment is, in effect, the equivalent of an open offer to the CFTC 10 to discount receivables of a specific buyers at certain terms. Acceptance of this offer by the CFTC 10 is indicated, for example, by a suitable notification message generated by the CFTC and sent to the appropriate supplier 14, 16, 18, and 19 concerning those invoices to be discounted. It is noted that alternatively, a supplier 14, 16, 18, and 19 may assign all the receivables in advance to the CFTC 10. Receivables that were not discounted before the payment due date, or any agreed date, would then be assigned back to the supplier.

**[0058]** Under the contractual arrangement, CFTC 10 consents to pay the supplier 14, 16, 18, 19 a discounted purchase price for goods or services delivered, namely face value minus a discount rate, shortly after issue of a notification message. Pursuant to the agreement, the buyer 12 is notified by the supplier regarding the assignment of the supplier's receivables and is instructed to settle selected invoices on the payment due date by paying the amount due directly to the CFTC 10 upon demand of the CFTC. The agreement with the supplier 14, 16, 18, 19 may include, for example, terms and rules that limit the invoices and the amounts that will be financed.

**[0059]** In accordance with an embodiment of the invention, buyer 12 consents to share his accounts payable and invoice information with the CFTC 10. In parallel, the supplier 14, 16, 18, 19 approves use of this information. Thus, whenever buyer 12 approves financing trade credit of a supplier 14, 16, 18, 19, the buyer provides a future irrevocable payment order or payment commitment to the CFTC 10. This commitment may be issued to the CFTC 10 or sent directly to that financial institution 20, 22, 24, and 26 which will be putting up short term financing covering trade credit. It is noted that such payment order neutralizes the commercial risk associated with the debt, since the buyers payment order is made irrevocable. 25

**[0060]** In this context, commercial risk means the risk relating to the willingness of a buyer 12 to pay the debt. A commercial risk may be affected by various commercial and business considerations, for example whether an appropriate quality and quantity of merchandise is delivered. Commercial risk is different from the credit risk, which means an overall business risk associated with the buyer. Credit risk relates to the general business risk of a buyer, for example its current and future solvency.

**[0061]** It is a feature of the present invention, that in order to encourage collaboration of the buyer, the CFTC 10 agrees to distribute to the buyer part of the spread between the cost of the capital obtained based on the buyers irrevocable commitment to pay-up an invoice at a future date, and the discounted sales price paid to the supplier. In accordance with an embodiment of the invention, the buyer is entitled to receive the full amount of the spread, and the CFTC 10 is paid a commission for facilitating obtaining the credit, for example a percentage of the spread. Optionally, the CFTC's consideration may be the spread, and the buyer is paid an agreed amount in an effort to encourage its collaboration in financing the trade credit.

**[0062]** In accordance with the invention, a financial institution 20, 22, 24, ~~26~~ agrees to provide the CFTC 10 with a loan (credit), and preferably a non-recourse loan, against the buyer's 12 payment commitment that serves as a security for the loan. Optionally, the financial institution provides cash against the assignment (sale) of a future payment order from CFTC 10 to the financial institution. It is appreciated that this funding may be obtained either as a secured loan, sale of a payment commitment, or combination of both.<sup>15</sup>The credit line against each customer for such loans and the cost of funds may be either decided ad hoc by the financial institution, or may be the subject of a pre-negotiated arrangement.

**[0063]** In accordance with an embodiment of the invention, a supplier 14, 16, 18, 19 may be provided with the option of updating some of the terms and conditions of its participation in a collaborative arrangement for financing trade credit. For example<sup>20</sup>, the terms may include a definition of the maximum amount of debt to be financed, the exclusion of invoices with under-minimum time period before the maturity of the buyer's 12 debt and the like. The updating of these terms will take effect within an agreed period, such as up to a few days. A supplier 14, 16, 18, or 19 may also be provided with the option to dynamically offer a discount rate over an agreed minimum discount rate, in order to give a financial<sup>21</sup>incentive to the buyer 12 and CFTC 10 to select his invoices prior to selection of other suppliers' invoices.

**[0064]** In view of the foregoing, it is noted that in accordance with an embodiment of this invention, the CFTC service center architecture includes a computer platform with four key elements: (i) The first element comprises a set of interfaces with the participants. Through these interfaces the CFTC center communicates with the participants ~~by~~ receiving and sending required input and output information; (ii) The second element comprises a device to prioritize and select the transactions which will be financed. Prioritization identifies

which suppliers, which invoices and which financial institutions are to be included in a potential transaction for financing trade credit. This element produces “suggestions” to the buyers, based on various rules and terms pre-set by the buyers and the suppliers, the available funds and the possible financial spreads; (iii) The third element comprises a database that stores all the information relating to transactions for financing trade credit, including the invoices of the suppliers, the instructions of the buyers, information on outstanding loans from the financial institutions and all the terms with the participants; and (iv) The forth element comprises a clearing mechanism to ensure that all the accounts are balanced and that all transactions are completed back-to-back with credit from financial institutions on one side and discounting the suppliers on the other. The priorities and selections made by the second element are sent to the buyers or shown to them on a display device.

[0065] Reference is now made to Fig. 2, which is a simplified schematic illustration of an exemplary structure of a CFTC service center device in accordance with an embodiment of the invention, for example a CFTC employed in the methodology seen in Figs. 1A and 1B. CFTC service center device 170 is a computing and operational platform having communications capabilities. The device 170 includes a display device 174, an input device 176, an output device 178, a processor device 194, a communication device 195 and a storage device 182. The storage device 182 is preferably a hard disk with a sufficient storage capacity for holding computer program utilities, the applications programs and data structures needed for the operation of the methodology described with reference to Figs. 1A and 1B.<sup>20</sup>

[0066] As seen in Fig. 2, storage device 182 includes an operating system 184, a Graphical User Interface (GUI) device 186, a CFTC database 188 and a CFTC application 190. The CFTC database 188 comprises a processed invoices file 200, a rules table 196, a financial entities file 202 and a received instructions file 198. The CFTC application comprises a CFTC database handler 208, an application control routine 204, a history manager component 210 and a transaction manager component 206. The storage device may be operative to store various other data structures and applications that support the CFTC system and method. It would be easily understood that the structure, hardware devices, data structures and computer programs seen in Fig. 2 are exemplary only. Diverse other devices may be connected to and installed in the CFTC device 180 and diverse other data structures and programs may be added. In addition some of the files and programs may be combined or eliminated altogether. The person skilled in the art will appreciate that the illustration of the

device 170 is merely exemplary and that like components may be employed without departing from the spirit of the invention.

**[0067]** Reference is now made to Fig 3, which is simplified chart of considerations used by a CFTC service center, in accordance with the method of Fig. 1A. The considerations included Fig. 3 are those considerations that typically considered by a buyer in selecting trade credit to be covered by collaborative financing. These considerations typically are considered at pre-defined time intervals, for example every period spanning between one and several days. In accordance with an embodiment of the invention, considerations 31 are specifically designed and developed as part of computer logic for implementation in computer programming code sequences in a CFTC application. The application is executed and runs on the CFTC service center device 10 of Fig. 1B. Considerations 31 may be considered by individuals making or using the present invention. Other considerations, similar to considerations 31, may be considered partly by computer devices and partly by individuals or commercial firms.

**[0068]** Considerations 31 include: suppliers demand for financing 32, and the discount rate that they are willing to accept. Terms with the suppliers are set in an agreement. Nevertheless, these terms that may change over time. Changes are transmitted as messages from the suppliers devices (reference numerals 14 – 19 in Fig. 1B) via the data communications network or in any other suitable way. Messages may also be received via facsimile or telephone devices or like devices.

20

**[0069]** Buyer invoice information 34, which correlates to information concerning invoices received and approved-for-payment is obtained remotely from the buyer (device 12 in Fig. 1B). In accordance with an embodiment of the invention, the information is obtained directly by accessing an accounts payable system of the buyer, or in any other alternative manner, such as by file transfer, by telephone, by facsimile message or any other suitable means. The invoices' information is received near in time to the transaction.

**[0070]** Through consideration 36, CFTC becomes informed of the credit exposure that each financial institution makes available to each buyer for any given period of time (of financing) and for each currency. Information necessary to make each transaction, including credit lines, is received from financial institutions 20 – 26 (Fig. 1B). A Request for information may be embedded into specific message files transmitted from the CFTC device 10 to the financial institutions devices via the data communication network 17 or sent to and

from the bank via other means such as a telephone request or a facsimile message or like other means of communication.

**[0071]** Subsequent to the collection and collation of the relevant data from the suppliers, buyers and financial institutions, the information is processed by a specifically designed and developed set of computer programs that are implemented on the CFEC service center device 10 of Fig. 1B. The processing may include the prioritization of the suppliers and the financial institutions according to the financial spread, the volumes of the funds available from the financial institutions, the suppliers' demand and discount rates and the strategic and other preferences of the buyer. The financial spread is the difference between each supplier's discount rate and each financial institution per buyer interest rate, i.e. between ~~the~~ price the supplier is ready to pay for cash in exchange to the buyer's debt and the buyer's cost of funds at the specific financial institution. The financial income from the financing transaction is affected by the financial spread, the volume of the requested credit and the period of time. Thus, prioritization of the suppliers is important when the supply of funds by the financial institutions is less than the funds demand by the suppliers or when a buyer is not interested in using all of the funds available from the financial institutions for that purpose. The prioritization of the financial institutions is important for the same reasons since each financial institution may offer a different cost of funds per buyer and the lower the cost of funds the higher the financial spread. The prioritization may assist in creating competition that increases the financial spread even further: the financial institutions may compete by lowering interest rates per buyer and the suppliers may try to offer higher discount rates to achieve better position than other suppliers. The buyer's strategic considerations may include supplier preferences and financial institution preferences that are influenced by business needs of the buyer. For example, benefiting a strategic supplier by granting him a higher priority to financing sources (while compromising financial income from more profitable ~~as~~ transactions with other suppliers), or conversely, excluding a financial institution, that offers a lower cost of funds, in order to keep the credit line in that financial institution available for the buyer's direct utilization.

**[0072]** Reference is now made to Fig. 4 which is a simplified flowchart of a method for collaborative financing of trade credit in accordance with an embodiment of ~~the~~ invention. At operation 38 the information received from one or more of the suppliers, buyers and financial institutions is processed, alternative transactions are prioritized according to various

criteria. These criteria include, for example, objective criteria such as the amount of a discount that a supplier is willing to accept and the cost of capital available from one or more financial institutions, as well as subjective criteria such as a buyers preferences.

**[0073]** At operation 40 processed and prioritized information is sent to the buyer. Information sent to the buyer includes, for example, a list of suggested invoices to be paid, and may also include the identity of financial institutions that have been selected to provide the funds for financing the trade credit, and the terms for financing. In accordance with an embodiment of the invention, the prioritized information is transmitted to the buyer via communications network 17 (Fig. 1B), or via any other suitable pathway.

**[0074]** At operation 42, the buyer reviews the information and the suggestion, and based on subjective financial and strategic parameters, a decision making organ of the buyer, for example its treasury or accounts department, reviews, optionally modifies and accepts the suggestion of the CFTC service center. Any accepted suggestion, as modified (if modified) are then returned to the CFTC service center.

**[0075]** It is appreciated that the buyer may reserve the capability of examining which invoices are to be paid to which supplier under terms of financed trade credit. Thus the buyer may further exclude specific invoices or suppliers, if desired. In accordance with an embodiment of the invention, following the approval of invoices by the buyer, information on invoices to be discounted is re-examined by the CFTC service center, tested for errors and validated against the suppliers' terms and available credit lines. 20

**[0076]** In accordance with an embodiment of the invention, at operation 42 the CFTC service center contacts selected financial institutions and confirms their final commitment to put up funds against a future payment order or against a payment order from the buyer to the CFTC, that will be sent to them in due course. This ensures that commitments requested prior to sending the actual payment order haven't changed during the time it took the buyer to approve the CFTC suggestion. In accordance with an embodiment of the invention, financial institutions may provide a time-limited commitment to supply credit, instead of confirming credit on an ad hoc basis.

**[0077]** In the event that an ongoing commitment from a financial institution is received at an earlier stage, the previous operation may be omitted. At operation 46 the buyer transfers a future irrevocable payment order to the selected financial institution. This transfer may be made directly to the financial institution or via the CFTC service center. In

accordance with an embodiment of the invention, the payment order includes an irrevocable commitment to pay the full face value of a sales transaction on the due date of an invoice that has been approved for payment. The payment commitment may reflect a single transaction, or optionally may be a total commitment with respect to multiple sales and multiple debts to a supplier. Payment commitments may be separated according to due dates and/or different fund sources (financial institutions).

**[0078]** The CFTC device maintains a record of payment orders that are sent to financial institutions. At the appropriate time, at operation 48, the CFTC sends a notification message to the supplier. This message includes a list of invoices which are being paid promptly. It is appreciated that delivery of this notification message to the supplier may be made either before or after receipt of the payment order by the financial institution.

**[0079]** In accordance with an embodiment of this invention, the buyer may provide commitments to pay the CFTC, rather than issue payment orders in favor of financial institutions. This mechanism is effective for serving financial institution which lack the capability of handling future payment orders, and serves buyers who do not wish to instruct financial institutions to pay ahead of time. Moreover, such arrangement will also enable buyers to transfer payment between accounts in different financial institutions when the financing institution is not an institution whereat the buyer maintains a bank account. It is additionally noted that payment commitments are optionally assignable to third parties. Assignment of payment commitments enables a CFTC service center to sell the payment order/commitment and treat it as an asset.

**[0080]** Reference is now made to Fig. 5 which is a simplified chart of procedures for completing collaborative financing of trade credit in accordance with an embodiment of the invention. After a payment order/commitment is forwarded to a financial institution, the CFTC service center receives funds from the financial institution via any of two alternative methods, or a combination thereof:

**[0081]** Option 1: the CFTC receives a loan (credit) future value at maturity (namely the capital and interest due) will be equal to the amount due from the buyer to the CFTC or the financial institution under terms of the payment order. The CFTC produces and sends the financial institution a message, including permission to use the expected payment of the buyer for the repaying the loan. In accordance with an embodiment or the present invention, the loan comprises a non-recourse loan that leaves the CFTC with no credit risk.

**[0082]** Option 2: the buyer's payment order is assignable. Here the CFTC may sell a payment order, for example as commercial paper, for cash and assign the commitment to the financial institution at a discount. This discount typically is in place of an interest rate mentioned in the associated option (1), and represents the cost of obtaining capital from the financial institution. At the payment due date, the amount owed under thes payment commitment is paid by the buyer directly to the financial institution.

**[0083]** The economic consequences of both of options (1) and (2) are substantially similar. In both cases the financial institution assumes a credit exposure against the buyer and receives payment at an interest rate reflecting the buyer's cost of funds (operation 50). The supplier receives a discounted payment immediately or shortly after the CFTC receives funds from the financial institution (operation 52). Upon receiving the discounted payment, the supplier considers the sales transaction to be settled and it relinquishes any claims he may have against the CFTC. Distribution of funds to the supplier may be done via a trust company bank account or through a specific company that has been created for the purpose of transferring funds. In accordance with an embodiment of the invention, the trust company distances the supplier from risks assumed by the CFTC and ensures the payment to the supplier, even in the event that the CFTC becomes unable to pay in the short time from when funds are received from the financial institutions and forwarding of those funds to the supplier.

**[0084]** Optionally, the CFTC's activity is insured to protect the suppliers ~~against~~ fraud or insolvency of the CFTC. On the due date for payment, the buyer transfers funds to the financial institution. Alternatively the financial institution may charge the buyer directly in the event that the buyer has an active account with the financial institution (Operation 54). If the payment was assigned (namely, sold to the financial institution) the funds go directly to an account controlled by the financial institution. Otherwise when the funds are ~~provided~~ under credit terms, the financial institution will charge the CFTC account following payment as a payback for the loan.

**[0085]** In operation 56, the CFTC completes the collaborative financing of trade credit process by periodically distributing to a buyer part of the spread between funds received from financial institutions and discounted amounts. This distribution may be made ~~by~~the CFTC paying the buyer a commission, or by its transferring profit to the buyer, less a commission

kept for the CFTC. The size of the commission may be a percentage of the difference or may be calculated in any pre-negotiated manner.

**[0086]** In accordance with an embodiment of the present invention the commission to the buyer depends on the financial profit from the transaction. This profit is a function of the volume of the approved-for-payment invoices in buyers' respective accounts payable systems, and the period of time between approval of invoices and their respective payment due dates. This dependence incentivizes buyers to quickly approve invoices. Thus, quicker approval of the invoices results in longer a financing period, increased benefits to the supplier because it receives financing for trade credit at an earlier date, increased income to the buyer (and to the financial institutions) and correspondingly in improved economic value in the process.

**[0087]** It is appreciated that the entity and the role of financial institution in accordance with an embodiment of this invention may be filled by a bank, an insurance company or any other funding company. Moreover, the entity and the role of financial institution may also be filled by greater than one institution. For example, the financial institutions may include a combination of an insurance company to cover risks associated with advancing credit, and a bank to provide risk-free funds (with the insurance company assuming credit risk instead of that of the buyer). The financial institution may also be a company that obtains funds from capital markets by selling commercial papers and other instruments.

**[0088]** In accordance with an embodiment of the invention, the CFTC is an independent business entity. Optionally, the CFTC is itself a financial institution that facilitates the process, although the CFTC being a financial institution may create potential conflicts of interests with other financial institutions participating exclusively as financial institutions and not as CFTCs. In accordance with another option, the CFTC may be a government-based or a not-for-profit organization. The interest of not-for-profit organization to serve as CFTCs may be to increase the efficiency of the local commerce.

**[0089]** An economic rationale underlying operation of embodiments of the present invention, is to enable a buyer to exploit information on approved invoices, and to use its own financial strength and the willingness of financial institutions to take credit exposure against him for generating new sources of financial income. By utilizing unused credit potential in various financial institutions, a buyer creates new income, or effectively reduces the actual

cost of sales transactions, while gaining a tool to benefit his suppliers who are short of cash or looking for additional sources of funds.

**[0090]** It is appreciated that suppliers may also have the benefit of an improvement in their balance sheet because non-recourse financing enables them to clear the paid accounts receivable from their balance sheet. Thus new economic value created by implementation of an embodiment of the present invention is shared by all the participants of the process: The buyer receives new income, and reduces the effective cost of a purchase transaction, while preserving the original trade credit terms with his suppliers. The supplier gains a new cash source for early payment and reduces its commercial risks. The financial institutions gaining a new channel for providing high quality credit. The CFTC service center receives a commission or benefit, which is a part of the value created to all the other participants. Furthermore, the mutual benefits to the buyer and to the suppliers eventually increase the overall value of the commercial relationships.

**[0091]** It is noted that the buyer maintains total control over the process by setting the criteria for selecting sources of financing and determining the invoices with respect to which the funds are used. This too increases the economic value for the buyer, offering the buyer an additional avenue for cultivating commercial relations with preferential suppliers.

**[0092]** It is noted that embodiments of the invention described hereinabove are exemplary only. Although in accordance with an embodiment of the invention, collaborative financing of trade credit is performed using computerized channels and automated communications networks between the various participants, it is appreciated that parts of the transaction may be accomplished manually.

**[0093]** Other embodiments of the invention may include technological systems having different levels of integration. For example, a buyers' invoice information may be exported directly from the buyer's Accounts Payable (AP) system. Likewise, selected invoices-to-be-paid information, which include CFTC's suggestions, may be imported by a buyer's Accounts Payable system to automatically create payment orders and update the invoices as marked for payment, thus saving manual intervention.

**[0094]** The financial institution could also work with the CFTC in an integrative manner. For example, required information (the availability of capital and its cost) may be obtained automatically through legacy systems via the Internet, or by utilizing EDI, or through various e-commerce applications, or through other suitable electronic means.

Likewise, payment orders or commitments may be received electronically and programmed to automatically provide the CFTC with funds against payment orders. Moreover, interaction among suppliers may also be managed interactively through a supplier user-account established specifically on the CFTC service center computers.

**[0095]** It will be appreciated by persons skilled in the art that the present invention is not limited to what has been particularly shown and described hereinabove, and that may other implementations and variations are possible without departing from the spirit of the invention.. The scope of the present invention is defined only by the claims, which follow.